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ABSTRACT

Between 1983 and 1987, every state in the United States adopted some sort of education reform. This paper presents findings of an analysis of reform activity in the 50 states during the mid-1980s, with a focus on several education and socioeconomic indicators. The conceptual framework was grounded in general-systems theory, which attributes some of the reform activity to the "messiness" of human political behavior. Data were collected through a national survey of state-level, education policy reforms for the years 1983-87, which elicited a 94 percent response rate. State statutes were also reviewed. Dependent variables included types of reforms: increased graduation requirements, increased or instituted student testing, curriculum-materials policies, increased teacher entry requirements, teacher-compensation reforms, longer school day or year, and increased state funding of education. Independent variables that influenced the educational policymaking process included indicators of: educational performance, fiscal effort on behalf of education, socioeconomic status and fiscal capacity, administrative organization, the education-policy subsystem structure, and the general context of the states (political culture). Guttman Scalogram analysis was used to discern patterns among the dependent variables. Univariate correlations and stepwise regression analysis were conducted to determine relationships between dependent and independent variables. The data show that: (1) the wave of reform for 1983-87 was characterized by greatly expanded participation; (2) although the reform was centered in state capitols, the reforms were national in scope and character; (3) traditional education interest groups played minor roles in education reforms; (4) the involvement of business and political leaders reflected the heightened political salience of education for both groups; and (5) the most extensive reforms occurred in states that were hypothesized to have the least interest in reform and may well reflect the previous conclusions. Six tables are included. Much bibliographic data is contained in 35 notes. (LMI)

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Political and Social Roots of Education Reform: A Look at the States in the Mid-1980s*

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Introduction

Between 1983 and 1987, every state adopted some education reforms. There is great similarity in the resultant policies adopted by the states, particularly those which increased high school graduation requirements, those which instituted teacher accountability measures, those which increased the testing of students, and those which increased (and sometimes revised the method of) compensation of teachers. Most states enacted reforms designed to increase the centralization of decisionmaking at the state level, but a few chose to reform the school system in ways that enhanced the authority of local school districts, individual school buildings, or even individual parents. In the face of great public scrutiny and efforts by the Reagan Administration to focus attention on education at the state level, and in the face of remarkable similarity in state responses, why did some states act in ways that were different from the norm? What factors influenced decisions to centralize power or to disperse it? What factors influenced decisions to enact sweeping reforms or to act more selectively?

This study reports on an analysis of reform activity in the 50 states during the mid-1980s, with particular attention to a number of education and socioeconomic indicators which are described in detail below.

The study is grounded in the discipline of political science, and its principal conceptual framework is general systems theory.[1***] Within this framework, it is useful to explore explicitly the policymaking processes,[2] the roles of groups,[3] the expansion of political conflict,[4] policy issue networks,[5] the limited array of possible policy mechanisms,[6] and the tendency toward centralized education decisionmaking in the states.[7] While this conceptual framework is useful in explaining much of what happened in the states, some of the most interesting activity is attributable to the "messiness" of human political behavior.[8]

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** The author is executive director of Pennsylvania 2000, a coalition of business, education, and government leaders promoting education improvement in that state. This research was conducted in conjunction with the author's doctoral studies at The Pennsylvania State University and is not intended to be representative of the views of the Pennsylvania 2000 Board of Directors.

*** Notes appear at the end of the text.

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Research Questions

Given the plethora of state activity between 1983 and 1987, several questions present themselves for analysis. What caused such an unusual level of policy activity? What caused the great similarity in policies enacted from one state to another, given that the policy arena was the 50 states with their distinct political climates and cultures? What caused some states to be more active than others, although all 50 undertook some reforms? What caused a few states to undertake reform efforts different from the norm?

Dependent Variables

The dependent variables are the reforms themselves. Those reforms can be categorized as student-related and teacher-related. The former reforms: 1) increased graduation requirements, 2) increased or instituted student testing, and 3) specified curriculum materials; the latter reforms: 4) increased or instituted teacher testing and other professional entry standards, 5) instituted teacher career ladder or merit pay plans (or significantly increased salaries across-the-board), and 6) increased the length of the school day or year. A seventh reform, usually undertaken in conjunction with one or more of the student- and teacher-related reforms, was substantially increased state funding.

While the study focuses on reforms enacted between 1983 and 1987, it gives states "credit" if they made any of the reforms (except funding increases) prior to the period under study here, since that presumably would have deprived them of opportunities for further activity during the mid-1980s.

These types of reforms were selected as the dependent variables to be studied because they represent the virtual universe of reforms undertaken by the states. In fact, 49 states undertook at least one of the student-related reforms, and 47 undertook at least one of the teacher-related reforms.

Each of the dependent variables can be viewed separately, but efforts were also made to collapse them into a smaller number of discrete categories of variables, using Guttman Scalogram Analysis. The Guttman scale is based upon the assumption that scores of individuals (states, in this case) are to some degree cumulative. That is to say, if a large number of states undertook one reform, a smaller number the next reform, and so on, a cumulative relationship among the reforms or subsets of them could be identified. A high coefficient of reproducibility on the Guttman scale indicates the presence of a cumulative relationship among the scores. This cumulative relationship suggests increasing levels of difficulty in enacting reforms. If most states increased teacher testing but far fewer lengthened the school day, for example, one could assume that the former reform was easier

to enact than the latter.[9] This is a reasonable conclusion; the reforms with the least activity on the two Guttman scales are specification of curriculum materials, which is generally a long-term undertaking beyond the capability of state legislatures, and lengthening the school day or year, which is very expensive.

Most of the reforms enacted increased state control over policymaking. Some, however, increased site-level control, thus giving more authority to teachers and principals in individual school buildings, increased citizen participation in school governance at state or local levels, and increased parental choice over the location of their children's educations; these are different in character from the other reforms because they are not intended to be centralizing in effect and actually are intended to shift power relationships within and around the education policy subsystem.

Independent Variables

While any number of independent variables could be examined, those thought to be most likely to influence the education policymaking process were selected for analysis.[10] These include indicators of: 1) educational performance (college admissions examination (SAT or ACT) scores and high school graduation rates); 2) fiscal effort on behalf of education (average teacher salaries, per pupil expenditures, and pupil-teacher ratios); 3) socioeconomic status and fiscal capacity (the percentage of 5-17 year olds living in poverty, the state's percentage of minority 5-17 year olds, state wealth per 5-17 year old, and the rate of urbanization); 4) administrative organization (the education centralization index[11]); 5) the education policy subsystem structure (education interest group strength[12]); and 6) the general context of the states (political culture[13]).

For each of the independent variables except SAT or ACT test scores, comparable data were available for all states so that they could be ranked against one another. However, in the case of the test scores, data for each state typically include only SAT or ACT scores, since most students in a state tend to take only one of the two college admissions tests. Because the two tests have very different scales (200-800 for the SAT and 1-36 for the ACT), test scores were converted to Z scores for comparison across all 50 states.

Table 1 summarizes the independent variables described above.

TABLE 1. Summary of Independent Variables

State	SAT	ACT	Grad. Rate	Teacher Salary	Exp./ Pupil	Pupil/ Tchr.	% Pov.	% Min.	Wealth/ Pupil	% Urban	Ed. Cent.	Int. Str.	PC
Alabama		17.4	65.5	$17,682	$2,055	20.1	22.7	32.2	$61,192	60.0	4.67	0	TI
Alaska		18.2	82.2	$37,807	$8,627	15.7	11.0	7.5	*******	64.0	3.38	0	I
Arizona		18.7	69.8	$21,642	$2,751	19.3	15.4	25.4	$83,790	84.0	2.91	1	TM
Arkansas		17.4	76.5	$16,929	$2,235	18.2	22.3	23.3	$59,057	52.0	3.57	0	TI
California	897		69.3	$24,843	$2,963	23.5	13.8	33.6	*******	91.0	3.65	1	MI
Colorado		19.7	80.5	$23,276	$3,373	19.1	10.5	19.3	*******	81.0	3.79	1	M
Connecticut	984		79.9	$22,627	$4,023	14.8	10.2	15.3	*******	79.0	2.68	0	IM
Delaware	982		79.4	$20,934	$3,949	16.8	14.4	23.2	$95,018	71.0	3.15	0	IT
Florida	890		67.4	$19,497	$2,932	17.6	17.2	28.5	$91,909	84.0	4.19	0	TI
Georgia	822		65.6	$18,630	$2,352	18.6	20.1	33.4	$82,522	62.0	3.24	1	TI
Hawaii	869		83.5	$24,357	$3,334	23.2	11.4	28.5	$96,358	91.0	6.00	0	IT
Idaho		18.9	78.3	$17,985	$2,146	21.0	13.1	5.4	$52,829	54.0	3.26	1	MI
Illinois		18.7	77.3	$24,191	$3,298	18.1	13.9	25.7	$89,639	83.0	3.32	1	IM
Indiana	864		78.3	$21,538	$2,725	19.5	10.8	11.3	$71,231	64.0	3.90	1	I
Iowa		20.2	87.9	$20,149	$3,274	15.6	10.6	3.1	$66,099	59.0	3.80	0	MI
Kansas		19.2	84.2	$19,411	$3,284	15.5	10.5	10.5	$81,225	67.0	3.38	0	MI
Kentucky		17.9	69.6	$19,660	$2,311	19.9	20.7	8.7	$65,980	51.0	3.90	1	TI
Louisiana		16.8	58.1	$18,400	$2,694	19.0	22.6	25.7	$77,137	69.0	3.19	0	TI
Maine	891		77.0	$17,328	$2,700	15.5	14.8	0.9	$66,760	48.0	3.09	0	M
Maryland	897		78.9	$23,870	$3,858	18.3	11.6	29.6	$93,862	80.0	3.56	0	IT
Massachusetts	896		73.8	$22,958	$3,595	15.5	12.1	8.7	*******	84.0	2.73	0	IM
Michigan		18.8	72.9	$27,104	$3,556	21.7	12.2	18.1	$74,859	71.0	3.85	0	M
Minnesota		20.2	96.0	$24,350	$3,395	17.9	9.3	2.8	$86,031	67.0	4.10	1	M
Mississippi		15.6	64.4	$15,812	$2,244	18.7	29.8	44.4	$50,230	47.0	3.93	1	T
Missouri		18.8	77.3	$19,269	$3,748	17.0	13.7	14.7	$83,554	68.0	2.84	1	IT
Montana		19.4	84.8	$20,690	$3,604	16.2	12.5	2.2	$61,579	53.0	3.47	0	MI
Nebraska		20.1	86.3	$18,785	$3,221	15.2	11.4	6.8	$76,943	63.0	3.81	1	IM
Nevada		18.7	77.8	$22,360	$2,690	20.4	9.0	17.6	*******	85.0	2.84	0	I
New Hampshire	931		76.9	$17,376	$2,980	16.2	8.7	1.2	$84,721	52.0	3.13	0	MI
New Jersey	876		79.8	$23,264	$4,496	15.6	13.2	22.0	*******	89.0	3.87	1	I
New Mexico		17.6	73.3	$20,571	$2,928	18.6	21.2	39.8	$68,987	72.0	3.79	1	TI
New York	894		66.0	$27,319	$5,117	18.4	12.2	27.9	*******	85.0	3.63	1	IM
North Carolina	827		70.7	$18,311	$2,303	19.8	17.5	29.3	$79,175	48.0	3.80	1	TM
North Dakota		17.9	89.7	$19,260	$3,028	16.6	13.7	1.2	$67,544	49.0	2.89	1	M
Ohio		19.2	80.5	$21,290	$2,982	18.9	12.0	13.2	$77,225	73.0	3.65	0	IM
Oklahoma		17.6	80.4	$18,630	$2,859	16.9	14.7	12.0	$75,178	67.0	4.91	0	TI
Oregon	907		73.4	$23,155	$3,677	18.3	10.4	5.4	$73,568	68.0	4.30	1	M
Pennsylvania	887		80.8	$22,703	$3,648	17.0	13.0	12.8	$81,023	69.0	3.75	1	I
Rhode Island	885		74.7	$25,337	$3,938	15.4	12.4	6.7	$82,329	87.0	3.21	0	IM
South Carolina	803		66.3	$17,384	$2,183	18.7	20.3	38.4	$63,460	54.0	4.61	0	T
South Dakota		19.2	87.6	$16,480	$2,685	14.7	19.0	1.2	$56,352	46.0	3.08	0	MI
Tennessee		17.7	65.5	$17,910	$2,101	20.9	19.8	20.3	$72,965	60.0	3.48	1	T
Texas	866		69.2	$20,170	$2,748	17.5	18.1	36.2	$99,300	80.0	2.88	1	TI
Utah		18.8	85.8	$20,007	$2,053	24.2	9.6	5.7	$52,948	84.0	3.42	1	M
Vermont	907		81.2	$17,606	$3,359	14.5	12.7	0.9	$68,780	34.0	3.17	0	M
Virginia	894		75.9	$19,676	$2,870	17.1	14.1	24.2	$91,922	66.0	3.88	0	T
Washington			76.0	$24,365	$3,465	21.2	10.0	7.3	$82,697	73.0	4.37	1	MI
West Virginia		17.4	77.7	$17,489	$2,879	16.5	17.9	4.3	$57,894	36.0	3.94	0	TI
Wisconsin		20.4	84.5	$22,811	$3,513	17.1	9.5	7.3	$74,897	64.0	3.62	0	M
Wyoming		19.3	80.9	$25,197	$4,523	14.2	7.4	7.5	*******	63.0	1.86	1	IM

Hypotheses

The study has four hypotheses:

- Based upon previous studies of policy innovation,[14] states ranked high on education performance and effort and fiscal capacity and low on socioeconomic variables would be most likely to undertake the most extensive education reforms during the mid-1980s. These are likely to be the states that value education most highly and that have the resources to undertake reform.

- States ranked high on education centralization would be most likely to undertake reforms increasing the centralization of decisionmaking.

- States with strong education interest groups would be least likely to undertake reforms that altered the education subsystem power structure.

- States with more traditionalistic political culture would be most likely to undertake reforms increasing the centralization of decisionmaking; those with moralistic political culture would be most likely to undertake reforms increasing citizen participation and site-level decisionmaking; those with individualistic political culture would be most likely to undertake reforms increasing individual (i.e., parent) choice.

Research Design and Methodology

The study is based primarily upon a survey of the state-level education policy reforms of the 1983-1987 period, including reviews of statutes and regulations enacted by the states between 1983 and 1987 and various surveys of state-level activity during that period. Unfortunately, each of these surveys is limited in scope, except for two conducted by *Education Week* in 1983 and late 1984. Various other organizations have surveyed the 50 states on a limited sample of activity, and some have surveyed a sample of states on the full breadth of education reform activity.

From these various surveys, a review of state statutes, and a report published by the Hudson Institute,[15] a reasonably clear picture of state education reforms can be constructed. This "picture" was used to develop a brief synopsis of each state. The synopsis of each state included a brief description of the reforms undertaken, the roles played by various policy actors, and any efforts to redistribute power within the education policy subsystem.

The synopses were sent in the spring of 1992 to the chief state school officers in all 50 states to check the accuracy of the information. In a policy environment that has undergone considerable change in personnel since the period under study, chief state school officers preside over relatively stable offices and have easy access to historical records. Responses were received promptly from 38 states, and a follow-up request to the other 12 states in late spring resulted in responses from 9 additional states, for a response rate of 94 percent. The relatively small number of changes suggested in the responses from 47 states adds to the author's confidence in the other 3 synopses.

The data are analyzed in terms of univariate correlations and multivariate regressions. The method of regression analysis used here is stepwise regression, in which the independent variable explaining the greatest variance in the dependent variable is entered into the analysis first, followed in "stepwise" fashion by the next most powerful explanatory independent variable, until the level of significance (in this case, .05) is reached.[16] Similar procedures were applied to Guttman scales of dependent variables, as noted above and described in greater detail below.

Data Analysis

Summary of Findings

Guttman Scalogram Analysis was used to discern patterns among the states in terms of combinations of reform efforts undertaken. The first attempt to create a scalogram using all of the dependent variables except funding increases did not result in a scale with a sufficiently high coefficient of reproducibility. However, two subsets, each consisting of three dependent variables, did form scalograms. A cursory review of the data indicated patterns of declining tendencies to engage in particular reforms. In terms of student-related reforms, many states increased high school graduation requirements (88 percent), while fewer instituted or increased student testing (80 percent), and fewer still undertook reforms of curriculum materials and standards policies (50 percent). This is not surprising, since revising curriculum materials policies takes more than a legislative mandate; it requires hard work over a period of time, with some investment of funds to support the development effort.

The three reforms dealing most directly with students formed a scalogram with a coefficient of reproducibility of .960, as shown in Table 2.

TABLE 2. Scalogram Analysis -- Student-Related Reform Choices

State	Graduation Requirements	Student Testing	Curriculum Materials	Observed Scale Score	Predicted Scale Score
Iowa	0	0	0	0	0
Alaska	1	0	0	1	1
Arizona	1	0	0	1	1
Illinois	1	0	0	1	1
Montana	1	0	0	1	1
Nebraska	1	0	0	1	1
New Hampshire	1	0	0	1	1
North Dakota	1	0	0	1	1
Wyoming	1	0	0	1	1
Colorado	0	1	0	1	2
Massachusetts	0	1	0	1	2
Vermont	0	1	0	1	2
Delaware	1	1	0	2	2
Hawaii	1	1	0	2	2
Idaho	1	1	0	2	2
Indiana	1	1	0	2	2
Kansas	1	1	0	2	2
Kentucky	1	1	0	2	2
Mississippi	1	1	0	2	2
Nevada	1	1	0	2	2
New Jersey	1	1	0	2	2
New Mexico	1	1	0	2	2
Pennsylvania	1	1	0	2	2
Utah	1	1	0	2	2
Washington	1	1	0	2	2
Minnesota	1	0	1	2	3
Maryland	0	1	1	2	3
Michigan	0	1	1	2	3
Alabama	1	1	1	3	3
Arkansas	1	1	1	3	3
California	1	1	1	3	3
Connecticut	1	1	1	3	3
Florida	1	1	1	3	3
Georgia	1	1	1	3	3
Louisiana	1	1	1	3	3
Maine	1	1	1	3	3
Missouri	1	1	1	3	3
New York	1	1	1	3	3
North Carolina	1	1	1	3	3
Ohio	1	1	1	3	3
Oklahoma	1	1	1	3	3
Oregon	1	1	1	3	3
Rhode Island	1	1	1	3	3
South Carolina	1	1	1	3	3
South Dakota	1	1	1	3	3
Tennessee	1	1	1	3	3
Texas	1	1	1	3	3
Virginia	1	1	1	3	3
West Virginia	1	1	1	3	3
Wisconsin	1	1	1	3	3
SUMMARY:					
Scale Profiles	44				
Non-Scale Profiles	6				
Coeff. of Reproducibilit	0.960				

With respect to teacher-related reforms, many states increased or instituted teacher testing or other career entry standards (86 percent), fewer increased or altered methods of teacher compensation (66 percent), and a relatively smaller number of states undertook a lengthening of the school day or year (30 percent).

This, too, is a reasonable finding. While a teacher testing mandate requires only the political courage to take on future teachers, revising compensation policy potentially threatens current teachers and their unions, and a longer school day or year is a very costly proposition.

The three reforms dealing most directly with teachers and their employment formed a scalogram with a coefficient of reproducibility of .953, as shown in Table 3.

TABLE 3. Scalogram Analysis -- Teacher-Related Reform Choices

State	Teacher Testing	Teacher Compensation	School Day/ School Year	Observed Scale Score	Predicted Scale Score
Alaska	0	0	0	0	0
Maryland	0	0	0	0	0
Wyoming	0	0	0	0	0
Alabama	1	0	0	1	1
Kansas	1	0	0	1	1
Minnesota	1	0	0	1	1
Montana	1	0	0	1	1
New Mexico	1	0	0	1	1
Oklahoma	1	0	0	1	1
Oregon	1	0	0	1	1
Pennsylvania	1	0	0	1	1
Rhode Island	1	0	0	1	1
Washington	1	0	0	1	1
Wisconsin	1	0	0	1	1
Hawaii	0	1	0	1	2
Ohio	0	1	0	1	2
Utah	0	1	0	1	2
Arizona	1	1	0	2	2
Colorado	1	1	0	2	2
Connecticut	1	1	0	2	2
Georgia	1	1	0	2	2
Idaho	1	1	0	2	2
Illinois	1	1	0	2	2
Iowa	1	1	0	2	2
Louisiana	1	1	0	2	2
Maine	1	1	0	2	2
Massachusetts	1	1	0	2	2
Mississippi	1	1	0	2	2
Nevada	1	1	0	2	2
New Jersey	1	1	0	2	2
New York	1	1	0	2	2
North Carolina	1	1	0	2	2
Texas	1	1	0	2	2
Virginia	1	1	0	2	2
West Virginia	1	1	0	2	2
New Hampshire	1	0	1	2	3
North Dakota	1	0	1	2	3
Vermont	1	0	1	2	3
Michigan	0	1	1	2	3
Arkansas	1	1	1	3	3
California	1	1	1	3	3
Delaware	1	1	1	3	3
Florida	1	1	1	3	3
Indiana	1	1	1	3	3
Kentucky	1	1	1	3	3
Missouri	1	1	1	3	3
Nebraska	1	1	1	3	3
South Carolina	1	1	1	3	3
South Dakota	1	1	1	3	3
Tennessee	1	1	1	3	3
SUMMARY:					
Scale Profiles	43				
Non-Scale Profiles	7				
Coeff. of Reproducibilit	0.953				

Data on the state reforms were subjected to both univariate correlation and multivariate stepwise regression analyses.

Because of the nominal nature of the political culture independent variable, it was treated differently in the data analysis. Separate regressions were run to determine if political culture dummy variables could be used to predict the education reform dependent variables. The analysis indicated that political culture did not predict any of the dependent variables at a .05 level of significance, so political culture was dropped from the remainder of the statistical analysis.

Table 4 displays correlations among the independent variables.

TABLE 4. Correlations Among Independent Variables

	Test Scores	Grad. Rate	Teacher Salary	Expend./ Pupil	Pupils/ Teacher	Percent Poverty	Percent Minority	Wealth/ Pupil	Percent Urban	Educ. Central.	Interest Group
Test Scores	1.000										
Grad. Rate	**.554** .000	1.000									
Teacher Salary	.182 .103	.170 .119	1.000								
Expend./ Pupil	**.263** .032	**.262** .033	**.843** .000	1.000							
Pupils/ Teacher	**-.366** .005	**-.328** .010	.042 .385	**-.386** .003	1.000						
Percent Poverty	**-.597** .000	**-.637** .000	**-.523** .000	**-.456** .000	.136 .173	1.000					
Percent Minority	**-.413** .001	**-.671** .000	-.065 .327	-.208 .074	**.394** .002	**.589** .000	1.000				
Wealth/ Pupil	.225 .058	.022 .439	**.782** .000	**.778** .000	-.161 .133	**-.425** .001	.099 .246	1.000			
Percent Urban	.176 .110	-.089 .270	**.529** .000	**.241** .046	**.314** .013	**-.348** .007	**.333** .009	**.533** .000	1.000		
Educ. Central.	**-.333** .009	-.049 .368	-.021 .442	-.157 .138	**429** 001	.165 .126	**.249** .041	-.216 .066	.059 .343	1.000	
Interest Group	-.204 .077	-.101 .242	.045 .378	-.109 .225	**.305** .016	.047 .373	.159 .135	-.046 .377	.130 .185	-.088 .271	1.000

These univariate correlations among independent variables are in no way dispositive, but they do suggest certain patterns of relationships that both reflect and influence the development of state policymaking with respect to public education. Three such patterns and one interesting observation follow:

1) **Student achievement** -- in terms of test scores and high school graduation rate -- is higher in states that spend more per pupil and provide more teachers, that have relatively small percentages of minority children and children living in poverty, and that have relatively decentralized education policymaking systems.

2) **Poverty** -- states with large percentages of poor and minority children have relatively lower wealth

per child, spend less per pupil, have larger classes, and have more centralized policymaking systems.

3) **Spending** -- in order to provide smaller classes taught by higher salaried teachers, states spend more per pupil, and states that spend more per pupil are those with greater wealth per pupil and fewer children living in poverty.

4) **Interest groups** -- even when they are strong are not very influential in terms of higher salaries or expenditures, and, ironically, correlate only with larger class sizes.

In the regression analysis that follows, these patterns recur frequently. Many of the dependent variables are related to these constellations -- achievement, poverty, or spending -- of independent variables. As a result of this multicollinearity, many of the individual independent variables that are significantly related before control "wash out" in the regressions, leaving only one or two to represent the larger set of variables.

Table 5 shows the correlations between each of the independent variables and each of the dependent variables. Included as dependent variables are the scalograms for student-related reforms, teacher-related reforms, and a composite scale including all the reforms other than funding increases.

TABLE 5. Correlations Among Dependent and Independent Variables

	Grad. Require.	Student Testing	Teacher Testing	Teacher Comp.	Curric. Materials	School Day/Year	Funding Increase	Student Scale	Teacher Scale	Composite Scale
Test Scores	-.218 .064	**-.246** **.043**	-.079 .294	-.031 .416	-.076 .299	.066 .325	-.049 .367	**-.272** **.028**	-.014 .462	-.185 .099
Grad. Rate	-.118 .206	**-.416** **.001**	-.208 .073	**-.326** **.011**	**-.334** **.009**	-.044 .381	-.063 .331	**-.446** **.001**	**-.293** **.019**	**-.480** **.000**
Teacher Salary	-.131 .182	-.182 .103	**-.486** **.000**	**-.237** **.049**	-.136 .173	**-.268** **.030**	**.398** **.002**	**-.245** **.043**	**-.480** **.000**	**-.471** **.000**
Expend./ Pupil	-.100 .245	**-.287** **.022**	**-.357** **.005**	**-.325** **.011**	-.166 .124	-.187 .096	**.357** **.005**	**-.287** **.022**	**-.432** **.001**	**-.467** **.000**
Pupils/ Teacher	.087 .275	**.338** **.008**	**-.248** **.041**	**.293** **.020**	.039 .394	.017 .452	-.024 .434	.208 .073	.072 .310	.182 .103
Percent Poverty	.216 .066	**.268** **.030**	**.313** **.014**	**.293** **.020**	**.269** **.029**	.154 .143	-.045 .379	**.394** **.002**	**.378** **.003**	**.501** **.000**
Percent Minority	.102 .239	**.382** **.003**	.030 .418	**.336** **.009**	.229 .055	-.065 .327	.164 .128	**.339** **.008**	.166 .125	**.328** **.010**
Wealth/ Pupil	-.057 .348	-.117 .219	**-.277** **.026**	-.052 .361	-.093 .260	-.202 .080	**.463** **.000**	-.162 .130	**-.253** **.038**	**-.270** **.029**
Percent Urban	-.029 .420	.216 .066	-.228 .056	.148 .153	-.029 .420	**-.289** **.021**	.103 .238	.026 .428	-.168 .121	-.092 .262
Educ. Central	.060 .341	.212 .070	-.053 .358	-.036 .403	.116 .211	-.041 .389	-.205 .077	.209 .073	-.064 .329	.094 .258
Interest Groups	.232 .053	-.070 .318	.157 .138	.098 .243	**-.240** **.046**	-.017 .452	.113 .218	-.110 .223	.110 .223	.000 .500

Student-Related Reform Findings

Between 19 3 and 1987, 40 states (80 percent) enacted statutes or regulations increasing high sch ol graduation requirements. Four states undertook such reforms in the years immediately p eceding the period of this study; four others do not have state graduation requirements; and two simply were not involved in this particular reform activity.

All of the states that changed graduation requirements added one or more required courses, specified the content of a greater percentage of the total courses taken by students, and in several cases introduced state graduation requirements for the first time. While few states completely followed the prescription of the *Nation at Risk* report, most took steps toward those specific recommendations. Perhaps because so many states with so many characteristics undertook reforms of graduation requirements, none of the independent variables achieved a .05 level of significance in either the univariate correlations or the multiple regression analysis.

Another very common reform of the mid-1980s was the institution or expansion of state testing programs for students. While basic skills competency tests were started in many states as much as a decade earlier, the 1983-1987 reforms included both expansion of existing testing programs and creation of new ones. Expansion of existing programs ordinarily took the form of adding grade levels or subject areas to be tested, moving from a requirement that school districts conduct tests to the imposition of state tests on all school districts, or increasing the stakes associated with test results (for example, high school graduation, distribution of state funds, and the like).

During the mid-1980s, 33 states (66 percent) established or expanded state testing programs; 7 which had testing programs in effect left them intact; and 10 others took no action with respect to student testing. In the multiple regression analysis, only graduation rate achieved the .05 level of significance, with a negative regression slope explaining about 17 percent of the variance in student testing policies ($r^2 = .17304$). However, before control there were statistically significant positive correlations between states undertaking student testing reforms and the independent variables for percentage of minority 5-17 year olds, pupil-teacher ratios, and percentage of 5-17 year olds living in poverty. There were statistically significant negative correlations between states undertaking student testing reforms and the independent variables for graduation rate, expenditures per pupil, and SAT and ACT test scores.

This suggests that policymakers in states with high achieving students felt less inclined to test their students than did policymakers in those states in which student achievement was lower. States with high achievement tended to be those with higher expenditures per pupil, smaller classes, and fewer poor and minority students.

States undertook a variety of reform efforts under the general rubric of curriculum materials and standards policies during the mid-1980s. These efforts ranged from incentives for local program expansion to the adoption of complete state curricula and the development of higher standards for textbook adoption, as in California. Several states developed model curricula and standards for evaluating progress, and offered these to school districts for voluntary adoption. Other states required districts to add certain course offerings (but did not require students to pass them as high school graduation standards), principally in the areas of science, computers, and foreign languages.

A total of 23 states (46 percent) developed such curriculum materials and standards policies during the mid-1980s, while 2 others retained their existing policies. Both graduation rate and interest group strength are negatively related to curriculum materials policies in the regression analysis, with graduation rate explaining about 11 percent ($r^2 = .11155$), and the two variables together explaining almost 19 percent ($r^2 = .18743$) of the variance. Before control, there was also a statistically significant positive correlation between curriculum

materials reforms and the independent variable for percentage of 5-17 year olds living in poverty.

These data are not particularly conclusive. They suggest that states with high achievement as measured by graduation rate were less likely to impose curriculum materials or course outlines on local school officials, while those states with high percentages of children living in poverty were so inclined; this is consistent with the highly negative correlation (-.637, significant to .000) between those two independent variables. The data also suggest that states with strong education interest groups were less inclined to impose state curriculum standards.

Teacher-Related Reform Findings

"Tougher standards" was a key rhetorical phrase in the education reform efforts of the mid-1980s. While 40 states increased their requirements for students to graduate from high school, 41 states increased the standards for entering and remaining in the teaching profession. The most common standard enacted during the period was a requirement that candidates for teaching certificates pass a state or national examination either before entering a teacher preparation program, before receiving a certificate, or both. State testing requirements varied in terms of content. Some states required candidates to pass only basic skills tests; others added tests of subject matter knowledge, general knowledge, and pedagogical skills. Other common teacher standards reforms included requiring candidates for certification to maintain specified minimum grades in college; creating first-year mentorship programs for new teachers; requiring continuing professional development for teachers; establishing "alternate route" certification programs to attract professionals from other fields to enter teaching; requiring or increasing the frequency of teacher evaluations; and increasing the amount of experience needed to obtain permanent certification or eliminating permanent certification altogether.

Between 1983 and 1987, 41 states (82 percent) instituted or expanded teacher testing and other professional entry standards; 2 others maintained previously established testing programs; and 7 states did not engage in reforms of this type. The regression analysis shows that the only statistically significant relationship with teacher testing was a negative relationship with teacher salaries, explaining about 24 percent of the variance ($r^2 = .23610$). Before control, teacher testing correlated positively at a statistically significant level with the independent variable for percentage of 5-17 year olds living in poverty and correlated negatively at a statistically significant level with the independent variables for teacher salaries, expenditures per pupil, wealth per pupil, and pupil-teacher ratios.

These data suggest that those states which provided teachers with the best teaching conditions -- higher average salaries and smaller class sizes -- were least inclined to increase teacher entry standards. This might reflect the power of teacher unions (although no relationship was found with strength of interest groups), a better educated teacher corps, or the perception of policymakers that their teachers were of high calibre.

Teacher compensation issues were an important component of education reforms in the mid-1980s, owing to a variety of factors. First, teacher salaries, which traditionally were not high, had eroded during the 1970s as a result of significant inflation in the economy. Second, many reformers interested in attracting better candidates to the teaching profession and retaining the best teachers in the profession argued that salary scales that did not recognize quality of performance were a disincentive to such efforts. Third, teacher unions effectively seized upon the nation's fervor for reform to advance aspects of their own agenda, sometimes in return for accepting otherwise unpalatable reforms such as increased entry requirements for the profession. During the mid-1980s, states enacted three different types of teacher compensation reforms: 1) career ladder programs that differentiated teacher responsibilities and the salaries paid to teachers on different "rungs" of the ladder; 2) merit pay plans, in which teacher salary increases were tied directly to performance evaluations; and 3) major increases in salaries across-the-board.

Between 1983 and 1987, 33 states (66 percent) enacted teacher compensation reforms. The only variable with a statistically significant positive relationship in the regression analysis was percentage of minority 5-17 year olds, explaining about 11 percent of the variance ($r^2 = .11261$). A number of statistically significant univariate correlations were found prior to control between teacher compensation policies and independent variables, including positive correlations with percentage of minority 5-17 year olds, percentage of 5-17 year olds living in poverty, and pupil-teacher ratios, and negative correlations with graduation rate, expenditures per pupil, and average teacher salaries.

The data reflect the considerable concentration of teacher salary reforms in southern states with large percentages of minority children, low salaries and expenditures per pupil, and large class sizes.

There was much more discussion than action during the mid-1980s on lengthening the school day or school year. Policymakers and researchers frequently pointed to the substantially longer school years in countries such as Japan and Germany and suggested that the nation would continue to be "at risk" until it required its teachers to teach and its students to attend school for comparable periods of time. Despite a widespread belief in the need for an expanded school calendar and its advocacy by the *Nation at Risk* report, any major increase would have been extremely expensive. Based upon education costs in 1983, Allan Odden

estimated that a nationwide increase from a six and one-half hour school day to an eight-hour day or from a 180-day to a 220-day school year would each cost $20 billion per year.[17]

Therefore, only 15 states (30 percent) actually undertook to expand the school day or school year between 1983 and 1987, and none of them did so by the orders of magnitude suggested above. In fact, in some cases, only a few minutes were added to the school day, or instructional time was protected from incursions by extracurricular activities. Some of the states that took action in this arena provided incentives for voluntary school day or school year expansions by local districts. No state increased the school year by more than five days.

The regression analysis shows a statistically significant negative relationship between school calendar reforms and rate of urbanization that explains approximately eight percent of the variance ($r^2 = .08368$). Prior to control, there was also a statistically significant negative correlation between school calendar reforms and average teacher salaries.

As was the case with the data on curriculum materials reforms, these are not very instructive. This may be because neither reform was considered central to any state's reform efforts. As was noted in the earlier discussion of creation of Guttman scales, both curriculum materials and school calendar reforms trailed behind the enactment of other reform proposals.

Funding Increase Findings

The mid-1980s were a time of relative prosperity following a national recession in the late 1970s and early 1980s. Most states had more fiscal resources to support education reform than they had during the preceding decade. With the advantage of a decade of hindsight, it is now clear that a number of the reforms enacted and funded by the states in the mid-1980s ceased to operate when they were de-funded as a result of the recession in the late 1980s and early 1990s.

Between 1983 and 1987, state revenues to support elementary and secondary education increased by an average of 41.0 percent.[18] During this time, 18 states (36 percent) increased state support by more than 41.0 percent; increases in Alaska and Wyoming were more than twice the national average. The wealth per pupil variable was statistically significant in the regression analysis, contributing about 21 percent of the variance ($r^2 = .21464$). Prior to control, average teacher salaries and expenditures per pupil also showed significant positive correlations.

These data seem to confirm the hypothesis that states with greater wealth and a greater previous propensity (or ability, perhaps) to invest in education would be more likely to invest more in their reform efforts.

Multiple Reform Findings

It is clear that the volume of education reform activity in the states during the mid-1980s was considerable, and most states undertook reforms of several policies during that period. As Thomas Timar and David Kirp put it:

> The visibility of the education reform movement is manifest in the intensity of policy activity. Since 1983 the states have generated more rules and regulations about all aspects of education than in the previous 20 years. Nationwide, more than 700 state statutes . . . were enacted between 1984 and 1986.[19]

Some states enacted single large-scale reform packages, but most proceeded to adopt individual policies more incrementally throughout the mid-1980s.[20] In most states, the result of enacting significant numbers of unrelated reforms was a reform "package" lacking in coherence or clear direction to teachers and school administrators.[21]

While all states enacted important education reforms prior to or during the mid-1980s, some were more active than others. Seven types of reform policies were identified previously. These were increased high school graduation requirements (44 states), increased or new student testing programs (40 states), curriculum materials and standards policies (25 states), increased or new teacher testing and other professional entry standards (43 states), teacher career ladder or merit pay plans or significantly increased across-the-board salaries (33 states), lengthening the school day or school year (15 states), and significant increases in state funding (18 states).

Table 6 ranks the states by the number of reforms they enacted, and displays the independent variable ranks for the states.

TABLE 6. States by Number of Reforms and Independent Variables

State	No. of Reforms	SAT	ACT	Grad. Rate	Teacher Salary	Exp./ Pupil	Pupil/ Tchr.	% Pov.	% Min.	Wealth/ Pupil	% Urban	Ed. Cent.	Int. Str.	PC
Arkansas	7		17.4	76.5	$16,929	$2,235	18.2	22.3	23.3	$59,057	52.0	3.57	0	TI
Florida	7	890		67.4	$19,497	$2,932	17.6	17.2	28.5	$91,909	84.0	4.19	0	TI
Missouri	7		18.8	77.3	$19,269	$3,748	17.0	13.7	14.7	$83,554	68.0	2.84	1	IT
South Carolina	7	803		66.3	$17,384	$2,183	18.7	20.3	38.4	$63,460	54.0	4.61	0	T
Tennessee	7		17.7	65.5	$17,910	$2,101	20.9	19.8	20.3	$72,965	60.0	3.48	1	T
California	6	897		69.3	$24,843	$2,963	23.5	13.8	33.6	$106,041	91.0	3.65	1	MI
Connecticut	6	984		79.9	$22,627	$4,023	14.8	10.2	15.3	$113,955	79.0	2.68	0	IM
Indiana	6	864		78.3	$21,538	$2,725	19.5	10.8	11.3	$71,231	64.0	3.90	1	I
Maine	6	891		77.0	$17,328	$2,700	15.5	14.8	0.9	$66,760	48.0	3.09	0	M
New York	6	894		66.0	$27,319	$5,117	18.4	12.2	27.9	$111,856	85.0	3.63	1	IM
North Carolina	6	827		70.7	$18,311	$2,303	19.8	17.5	29.3	$79,175	48.0	3.80	1	TM
South Dakota	6		19.2	87.6	$16,480	$2,685	14.7	19.0	1.2	$56,352	46.0	3.08	0	MI
Virginia	6	894		75.9	$19,676	$2,870	17.1	14.1	24.2	$91,922	66.0	3.88	0	T
Delaware	5	982		79.4	$20,934	$3,949	16.8	14.4	23.2	$95,018	71.0	3.15	0	IT
Georgia	5	822		65.6	$18,630	$2,352	18.6	20.1	33.4	$82,522	62.0	3.24	1	TI
Kentucky	5		17.9	69.6	$19,660	$2,311	19.9	20.7	8.7	$65,980	51.0	3.90	1	TI
Louisiana	5		16.8	58.1	$18,400	$2,694	19.0	22.6	25.7	$77,137	69.0	3.19	0	TI
Mississippi	5		15.6	64.4	$15,812	$2,244	18.7	29.8	44.4	$50,230	47.0	3.93	1	T
New Jersey	5	876		79.8	$23,264	$4,496	15.6	13.2	22.0	$103,564	89.0	3.87	1	I
Texas	5	866		69.2	$20,170	$2,748	17.5	18.1	36.2	$99,300	80.0	2.88	1	TI
West Virginia	5		17.4	77.7	$17,489	$2,879	16.5	17.9	4.3	$57,894	36.0	3.94	0	TI
Alabama	4		17.4	65.5	$17,682	$2,055	20.1	22.7	32.2	$61,192	60.0	4.67	0	TI
Idaho	4		18.9	78.3	$17,985	$2,146	21.0	13.1	5.4	$52,829	54.0	3.26	1	MI
Illinois	4		18.7	77.3	$24,191	$3,298	18.1	13.9	25.7	$89,639	83.0	3.32	1	IM
Massachusetts	4	896		73.8	$22,958	$3,595	15.5	12.1	8.7	$109,580	84.0	2.73	0	IM
Michigan	4		18.8	72.9	$27,104	$3,556	21.7	12.2	18.1	$74,859	71.0	3.85	0	M
Minnesota	4		20.2	96.0	$24,350	$3,395	17.9	9.3	2.8	$86,031	67.0	4.10	1	M
Nebraska	4		20.1	86.3	$18,785	$3,221	15.2	11.4	6.8	$76,943	63.0	3.81	1	IM
Nevada	4		18.7	77.8	$22,360	$2,690	20.4	9.0	17.6	$115,033	85.0	2.84	0	I
Ohio	4		19.2	80.5	$21,290	$2,982	18.9	12.0	13.2	$77,225	73.0	3.65	0	IM
Oklahoma	4		17.6	80.4	$18,630	$2,859	16.9	14.7	12.0	$75,178	67.0	4.91	0	TI
Oregon	4	907		73.4	$23,155	$3,677	18.3	10.4	5.4	$73,568	68.0	4.30	1	M
Rhode Island	4	885		74.7	$25,337	$3,938	15.4	12.4	6.7	$82,329	87.0	3.21	0	IM
Wisconsin	4		20.4	84.5	$22,811	$3,513	17.1	9.5	7.3	$74,897	64.0	3.62	0	M
Arizona	3		18.7	69.8	$21,642	$2,751	19.3	15.4	25.4	$83,790	84.0	2.91	1	TM
Colorado	3		19.7	80.5	$23,276	$3,373	19.1	10.5	19.3	$101,654	81.0	3.79	1	M
Hawaii	3	869		83.5	$24,357	$3,334	23.2	11.4	28.5	$96,358	91.0	6.00	0	IT
Kansas	3		19.2	84.2	$19,411	$3,284	15.5	10.5	10.5	$81,225	67.0	3.38	0	MI
New Hampshire	3	931		76.9	$17,376	$2,980	16.2	8.7	1.2	$84,721	52.0	3.13	0	MI
New Mexico	3		17.6	73.3	$20,571	$2,928	18.6	21.2	39.8	$68,987	72.0	3.79	1	TI
North Dakota	3		17.9	89.7	$19,260	$3,028	16.6	13.7	1.2	$67,544	49.0	2.89	1	M
Pennsylvania	3	887		80.8	$22,703	$3,648	17.0	13.0	12.8	$81,023	69.0	3.75	1	I
Utah	3		18.8	85.8	$20,007	$2,053	24.2	9.6	5.7	$52,948	84.0	3.42	1	M
Vermont	3	907		81.2	$17,606	$3,359	14.5	12.7	0.9	$68,780	34.0	3.17	0	M
Washington	3			76.0	$24,365	$3,465	21.2	10.0	7.3	$82,697	73.0	4.37	1	MI
Alaska	2		18.2	82.2	$37,807	$8,627	15.7	11.0	7.5	$173,445	64.0	3.38	0	I
Iowa	2		20.2	87.9	$20,149	$3,274	15.6	10.6	3.1	$66,099	59.0	3.80	0	MI
Maryland	2	897		78.9	$23,870	$3,858	18.3	11.6	29.6	$93,862	80.0	3.56	0	IT
Montana	2		19.4	84.8	$20,690	$3,604	16.2	12.5	2.2	$61,579	53.0	3.47	0	MI
Wyoming	2		19.3	80.9	$25,197	$4,523	14.2	7.4	7.5	$111,856	63.0	1.86	1	IM

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How much reform activity did each of the states undertake? For analytical purposes, the Guttman scales for student-related reforms, teacher-related reforms, and the composite scale discussed earlier were treated as dependent variables.

Using regression analysis, the only significant predictor for the student-related scale (increased high school graduation requirements, student testing programs, and curriculum materials policies) was the independent variable for graduation rate, with a negative regression slope that explained approximately 20 percent ($r^2 = .19913$) of the variance in that scale. Prior to control, the student-related scale produced statistically significant positive correlations with percentage of 5-17 year olds living in poverty and percentage of minority 5-17 year olds and statistically significant negative correlations with graduation rate, expenditures per pupil, college entrance test scores, and average teacher salaries.

These data suggest that states with high percentages of minority 5-17 year olds and 5-17 year olds living in poverty, states in which students were not achieving at high levels as measured by high school graduation rates and scores on college entrance examinations, and states in which spending was low as measured by expenditures per pupil and average teacher salaries, were most likely to adopt student-related reforms.

The only significant predictor for the teacher-related scale (teacher testing and other professional entrance requirements, teacher compensation, and length of the school day or year) was the average teacher salaries variable, with a negative regression slope explaining approximately 23 percent ($r^2 = .23060$) of the variance in that scale. Prior to control, the teacher-related scale correlated positively at a statistically significant level with percentage of 5-17 year olds living in poverty and produced statistically significant negative correlations with average teacher salaries, expenditures per pupil, graduation rate, and wealth per pupil.

These results are similar to those noted above with respect to the student-related scale. States most likely to enact teacher-related reforms were those with high percentages of poor children, low achievement levels as measured by graduation rate, and low levels of fiscal commitment as measured by wealth and expenditures per pupil and by average teacher salaries.

There were two significant predictors for the composite scale (all dependent variables except funding increases) -- a positive regression slope for percentage of 5-17 year olds living in poverty and a negative regression slope for expenditures per pupil. The poverty indicator explained approximately one-fourth ($r^2 = .25092$) of the variance in the composite scale, while the two independent variables combined to explain almost one-third ($r^2 = .32259$) of the variance. Prior to control, the composite scale also correlated positively at statistically significant levels with percentage of minority 5-17 year olds and correlated negatively with graduation rate, average teacher salaries, and wealth per pupil.

The composite scale produced correlations similar to those for each of the other two scales. States most likely to engage in major reform activity were those with high concentrations of poor and minority students, low achievement as measured by graduation rate, and low fiscal commitment as measured by wealth per pupil, expenditures per pupil, and average teacher salaries.

Locus of Control Findings

In most states, the effect of the education reforms discussed above was to increase state control over education policymaking. This was often intended, but discussions of power and its distribution were generally secondary to considerations of the education reforms themselves.

It is clear from looking at states in which power distribution was a major issue that policymakers also were able to see the need to redistribute power in order to bring about some desired reforms. This is particularly true in those states that sought to redistribute policymaking control away from the states to local school districts, school buildings, key citizen groups, or even individual parents. Some recent research suggests that even reforms intended to be centralizing in terms of power distribution often result in power diffusion as reforms are implemented by local school districts.[22]

The reforms discussed above were enacted by state governments and reflected the policy preferences of state officials, albeit mediated by education and other interest groups in the policymaking process. Most of those reforms had the effect of reducing the discretion of local educators by specifying more of what was to be taught, when it was to be taught, by whom it was to be taught, how it was to be assessed, and how local officials would be held accountable for results. With these reforms came a substantial increase in state funds, both in real dollars and in terms of the relative share of support for elementary and secondary education. Not every state that increased state control over education policymaking set out to do so, but in many states the reform rhetoric took on a tone of "education is too important to trust to the educators."

In the late 1980s and early 1990s, many states shifted their school reform efforts from a focus on state control to greater empowerment of those most directly involved in delivering education to children -- teachers, principals, and parents at the school building level. However, between 1983 and 1987, such shifts were rare.[23] In fact, by 1987, only two states, Massachusetts and Washington, had actively pursued decentralization strategies in their reforms that were designed to strengthen the policymaking role of those working at the school site.

Legislation passed by the Massachusetts legislature in 1985 -- Chapter 188 -- established school improvement councils in each school, including parents, teachers, and the school principal. These were not to be mere advisory committees; the state appropriated $10 per student directly to these councils, which were granted authority to spend the money as they saw fit. While school district boards were permitted to veto decisions of school improvement councils, they could not otherwise direct the expenditure of the funds. The following year, the state increased the appropriation to $15 per student and enacted a comprehensive school restructuring effort -- the Carnegie Schools program, which was never fully funded.

The Washington legislature, following a series of power centralizing reforms in 1984-1986, approved a recommendation of Governor Booth Gardner in 1987 to experiment with increased local decisionmaking authority. The legislature enacted as part of a larger reform bill that year a provision called "Schools for the Future: Schools for the Twenty-first Century." The program was to provide grants of $2 million to 21 pilot schools or school districts to increase site-based decisionmaking. The grants themselves were awarded beginning in 1988.

Massachusetts and Washington both rank in the middle third of all states on high school graduation rates. Both rank in the top third on average teacher salaries and expenditures per pupil, while Massachusetts ranks in the middle third and Washington in the bottom third on percentage of minority 5-17 year olds and percentage of children living in poverty. Massachusetts ranks 48th in terms of education centralization, while Washington ranks 5th. Washington does and Massachusetts does not have particularly strong education interest groups. The dominant political culture in Massachusetts is individualistic, while that in Washington is moralistic.

Much of the mid-1980s education reform sprang from reports of a variety of national and state commissions, with the *Nation at Risk* report representing a seminal point for the movement. As early as 1983, the Education Commission of the States had identified 16 major national commission reports and 175 state commission reports contributing to specific reform actions.[24] Many of these commissions, particularly at the state level, provided forums within which the conflict over education policy was expanded from the education interest groups to representatives of the broader community, particularly elected officials and business and media representatives.[25] This resulted in part from a general division among and weakening of education interest groups in the early 1980s[26] and the increased salience of educational quality for business leaders[27] and politicians.[28]

Despite the importance of broad-based commissions as catalysts for education reform and as sources of specific reform recommendations, this research has found only one systemic effort to institutionalize broad-based citizen participation in continuing educational governance. As part of its landmark Education Improvement Act (EIA), the South Carolina legislature in 1984 statutorily established a business-education oversight subcommittee, comprised primarily

of business and political leaders. The subcommittee was charged with overseeing implementation of the EIA reforms, issuing annual reports on progress, and making recommendations for further reforms. The subcommittee was provided with state funds for staffing and operations.

South Carolina ranks very low on measures of education achievement (44th on graduation rates and 21st out of 21 states reporting SAT scores) and education effort (45th on average teacher salaries and 46th on expenditures per pupil), and very high on socioeconomic characteristics (7th on percentage of children living in poverty and 3rd on percentage of minority children). It ranks very high on education centralization and does not have strong education interest groups. Its dominant political culture is traditionalistic.

Between 1983 and 1987 there was much more talk about school choice -- permitting students to attend schools outside their neighborhoods or districts -- than there was action. The subject of school choice may well be the most controversial within the constellation of 1980s school reforms. It has captured significant political and media attention, and serious scholars differ markedly in their views of what it represents. For example, Denis Doyle and his colleagues refer to school choice as "the singular symbol of school reform in the 1980s."[29] On the other hand, William Boyd and Charles Kerchner see choice as a reaction to the 1980s reforms, not as their symbol: "there has been a widespread failure, in the educational establishment, to appreciate how the politics of excellence tends to promote demands for choice that will reconfigure educational politics and management."[30]

While it is true that by the end of the decade, 29 states were experimenting with some form of choice, during the 1983-1987 reform period, there were only 2 states -- Colorado and Minnesota -- that took significant actions to advance choice as an education agenda item. The other states either had limited options in place prior to the reform period (particularly for students in rural areas or desegregating urban districts) or enacted more ambitious programs at the end of the decade.

In January 1985, Colorado Governor Richard Lamm proposed a major education reform package to the legislature. One aspect of that reform package was a "second chance" choice program to permit high school dropouts and students at risk of dropping out to attend public or private schools of their choice inside or outside the school districts in which they resided. The state would fund the program by providing vouchers to the students' parents, who would use them to purchase education services at the schools of their choice. The Educational Quality Act of 1985 included the Governor's voucher program when it was passed later that year.

The development of choice in Minnesota took a longer period of time but resulted in a more extensive program of educational options for students. Key to the development of the

programs was Governor Rudy Perpich, who proposed an eight-point reform package in 1985, including a broad-based school choice program. That year, the legislature approved the postsecondary options portion of the proposal, allowing 11th and 12th graders to attend colleges on a full- or part-time basis. By 1987, the legislature had approved statewide public school options for all students on a voluntary basis, and by 1988 the program was made mandatory.

Both Colorado and Minnesota rank in the top third of all states on college admissions tests (5th and 2d, respectively, out of 28 states reporting ACT scores), while Minnesota does better than Colorado on high school graduation rate (1st and 15th, respectively). Both rank in the top third on average teacher salaries and in the middle third on expenditures per pupil. Both rank in the bottom third on percentage of children living in poverty; Minnesota ranks 44th in percentage of minority children, while Colorado ranks 21st. Minnesota ranks in the top third of the states and Colorado in the middle third in terms of education centralization. Both have relatively strong education interest groups and dominant political cultures that are moralistic.

Summary

The hypotheses underlying this study were largely rejected by an analysis of the data on education reform in the 50 states between 1983 and 1987.

The first hypothesis was that states ranked higher on education performance and effort and on fiscal capacity and lower on socioeconomic measures were those most committed to education and its improvement, those with the greatest resources, and those, therefore, that would have undertaken the most extensive reforms during this period.

In fact, nearly the reverse was true. Student performance, as measured by high school graduation rates and/or college entrance examination (SAT or ACT) scores correlated negatively with the student-related scale, the teacher-related scale, the composite scale, and three of the seven specific reforms (student testing, teacher compensation, and curriculum materials policies). There were no statistically significant positive correlations between either of these achievement-related independent variables and any of the dependent variables. After control, the negative regression for graduation rate explained about 20 percent of the variance in the student-related scale, 17 percent of the variance in student testing reforms, and 11 percent of the variance in curriculum materials reforms.

Similarly, measures of educational effort (average teacher salaries, expenditures per pupil, and/or small class sizes) correlated negatively with the student-related scale, the teacher-related scale, the composite scale, and four of the seven specific reforms (student testing, teacher testing, teacher compensation, and expansion of the school day or year).

Small class sizes did correlate positively with teacher testing reforms, and average teacher salaries and expenditures per pupil did correlate positively with increased funding by states, however. After control, the negative regression for average teacher salaries explained about 23 percent of the variance in the teacher-related scale and about 24 percent of the variance in teacher testing reforms. Expenditures per pupil added about 7 percent to the explanation of the variance in the composite scale.

Fiscal capacity measures (state wealth per 5-17 year old and/or rate of urbanization) correlated negatively with the teacher-related scale, the composite scale, and two of the seven specific reforms (teacher testing and school calendar revisions), although state wealth per 5-17 year old did have the predicted positive correlation with funding increases. The latter relationship held up after control, with the regression explaining about 21 percent of the variance in funding increases. Similarly, rate of urbanization was still a significant predictor of school calendar reforms after control.

Finally, socioeconomic measures (percentage of 5-17 year olds living in poverty and/or percentage of minority 5-17 year olds) produced statistically significant positive correlations with the student-related scale, the teacher-related scale, the composite scale, and four of the seven specific reforms (student testing, teacher testing, teacher compensation, and curriculum materials policies). After control, the positive regression for percentage of 5-17 year olds living in poverty explained about 25 percent of the variance in the composite scale, and the percentage of minority 5-17 year olds explained about 11 percent of the variance in teacher compensation reforms.

The second hypothesis was that states ranked high in education centralization would have acted to further increase the centralization of policymaking.

In fact, since most states -- 38 of the 50 (or 76 percent) -- undertook purposefully centralizing reforms, and several others enacted reforms with centralizing effects, direct analysis of this hypothesis is not particularly meaningful. On the other hand, as noted above, only five states undertook specific decentralizing reforms (increased site control, increased citizen participation, and school choice). If the original hypothesis were correct, it would be reasonable to assume that these five states would rank low in education centralization. In fact, three of these five states ranked very high in education centralization -- South Carolina (fourth), Washington (fifth), and Minnesota (eighth). One other ranked above average -- Colorado (19th). Only one of the decentralizing states ranked low on the education centralization index -- Massachusetts (48th).

The third hypothesis was that states with strong education interest groups would have been least likely to undertake reforms designed to alter the locus of decisionmaking.

Of the two states increasing site-based decisionmaking, one had strong education interest groups and the other weak interest groups. The state that institutionalized a citizen oversight committee had weak interest groups, and the two states that enacted school choice programs -- perhaps the single greatest affront to organized education groups in the 1980s and 1990s -- both had relatively strong education interest groups.

A strong relationship does not appear to exist between the strength of education interest groups and shifts in the locus of education policymaking growing out of the mid-1980s reforms in the states. If anything, strong interest groups appear to have been incapable of blocking such shifts. Interestingly, the strength of interest groups correlated significantly with only one of the dependent variables -- a negative correlation with curriculum materials policies. After control, this added about eight percent to the explanation of the variance in these reforms.

The fourth hypothesis was that states with a dominant political culture that was traditionalistic would have enacted centralizing reforms; those with moralistic political cultures would have favored citizen participation and school site decisionmaking; and those with individualistic political cultures would have been more inclined toward school choice programs.

As noted above, the political culture variable did not result in any statistically significant correlations with any of the reform variables and was therefore not relied upon for further statistical analysis. In looking at the five anomalous cases of decentralizing states, descriptive analysis might be permitted to compensate in part for this lack of statistical significance. Only three states engaged in fostering citizen participation or school site decisionmaking, including one from each of the three dominant political cultures. The original hypothesis proposed that states with moralistic cultures would undertake such reforms. The two states enacting school choice programs both had dominant political cultures that were moralistic, rather than individualistic, as originally hypothesized.

Conclusions

Several conclusions may be reached after reviewing these findings. First, the education reform movement of 1983-1987 was not typical of earlier reform movements, either in terms of the degree of activity at the state level or in terms of the expansion of political actors involved in developing and enacting reforms. This latter conclusion is confirmed by the author's survey of the states, many of which reported atypical political procedures and greatly expanded participation. The primary additions to this policy development and enactment were business leaders and the media. Several states also reported that individual political leaders (usually Governors or chief state school officers) were more actively engaged in these reforms than was normally the case.

Second, despite the fact that the states were the locus of almost all the education reform in the mid-1980s, and despite some important state-to-state variation in reforms, the education reform agenda was really a national agenda. Kingdon describes agenda setting as involving problem recognition, policy options generation, and politics.[31] The first two largely reflected national attention while the third accounted for some of the variation among the states. The national commission reports, beginning with *A Nation at Risk* in 1983, took care of the problem recognition phase and largely delimited the policy options phase. In addition, the nationwide nature of the problems in education was reinforced by attention from nationwide media outlets and the national organizations to which key policy actors belonged. Academics in the field of education policy further reinforced this tendency through papers presented at national meetings.

The increased sophistication of government staff -- in both legislatures and executive offices -- and their ready access to one another and to computerized information about one another's activities further strengthened the tendency for individual state actions to resemble one another.

In short, the national commission reports opened the policy window, established a sense of crisis, and generated potential solutions, and these policy issue networks[32] served to create relatively uniform responses in 50 different states.

Third, traditional education interest groups, even in those states in which such groups tend to be relatively strong, played minor roles in the 1983-1987 education reforms. To some degree, this can be attributed to the splintering of the old education coalitions, largely over issues related to collective bargaining for teachers.[33] To some extent, it can also be attributed to the expansion of the conflict over education reform to include business and political leaders and the media. The result was that in most states, the education lobby was at best successfully reactive, while the impetus for reform came from other forces. Since the education interest groups did not establish the agenda, they were not able to influence the policies that evolved in the ways hypothesized.

Fourth, the involvement of business and political leaders reflected the heightened political salience of education for both groups. For business leaders, a growing recognition that future economic competitiveness required a better educated workforce was a principal motivator of salience.[34] For political leaders, the salience of the issue could be traced to personal or political commitments, a sense of accountability for the expenditures of large amounts of each state's budget, a view of the problems shared with the business leaders, and perceptions of the public's sense of crisis.[35]

Fifth, the more extensive reform activity in those states hypothesized to be least likely to engage in major reform may well reflect the previous conclusions. While all states did not

consider, much less enact, all of the policy options on the agenda, the fact that the problems and potential solutions both were defined largely outside the individual states opened a wider policy window than low achieving, socioeconomically poor states ordinarily could have opened for themselves. The expansion of the conflict over education reform to include business, political, and media leaders, coupled with the substantial neutralization of education interest groups, provided opportunities for new actors to set the agenda. Those new actors in low-achieving, socioeconomically poor states had a clear understanding that poor schools contributed to a poor business climate and that the only way to break the cycle was to invest in education reform.

Notes

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